



January 25, 2016



HBTS Project Timeline

Project
Start
4/25/2014

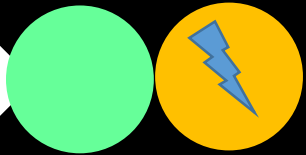
BOCC
Update
11/2014

Existing
Conditions
Update
7/2015

Report of
Findings
11/2015

Present
Findings
1/2016

Begin
Design



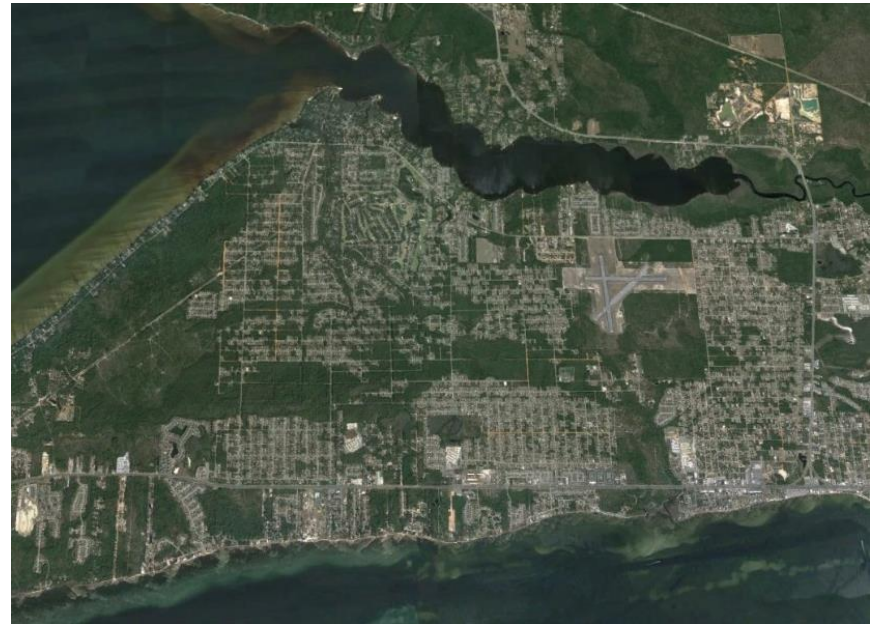
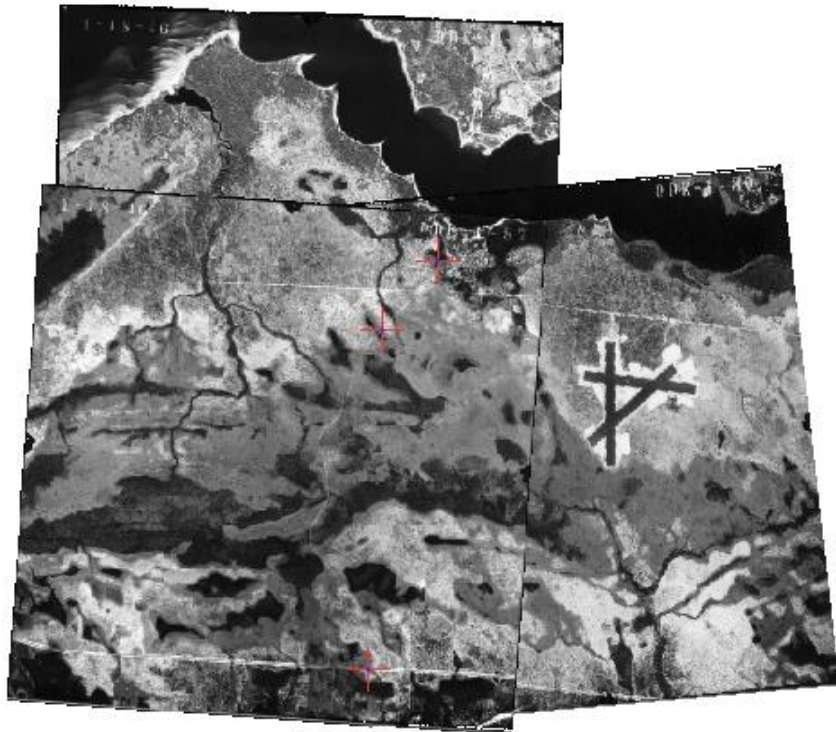
April Storms

4/29/2014

- Data Collection and Inspection
- Problem Area Mapping
- Public Questionnaire
- Public Questionnaire
- Inspection, Inventory, Catalogue Drainage Facilities
- Existing Conditions Model Set-up
- Model Calibration and Verification
- Conceptual Solutions and Alternatives
- Final Simulations and Report

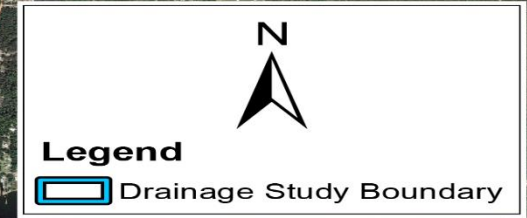
Background

- Platted in the 1970's
- Prior to current stormwater regulations
- Most residential development occurred after 2000



Project Limits

- **350 Streets**
- **650 Intersections**
- **8100 Acres**
- **10,000 Homes and Businesses**
- **9 Primary Basins**



Data Gathering

- Inventory drainage system
- Survey drainage structures
- Questionnaires to community



Inventory

- All primary culverts
- Identify drainage paths
- Tool for Santa Rosa County



Questionnaires

Advertised through:

- Santa Rosa County Public Information Office
- HBTS Homeowner's Association
- BDI Website
- Social Media



Responses:

- ✓ +/- 160 questionnaires returned
- ✓ Home floodings
- ✓ Standing water in yards
- ✓ Road floodings

A screenshot of the Baskerville-Donovan, Inc. website. The header includes the company name "BASKERVILLE-DONOVAN, INC." with the tagline "Innovative Infrastructure Solutions" and the slogan "Engineering the South since 1927." Below the header is a navigation bar with links for HOME, SERVICES, NEWS, COMPANY, CONTACT US, and social media icons for Facebook, LinkedIn, and YouTube, along with a link for FTP LOGIN. The main content area is titled "Holley By The Sea Drainage Improvements Questionnaire". It provides three ways to complete the questionnaire: 1. Fill out the form below online and submit. 2. Download the PDF. Open and complete by filling in the hi-lighted boxes within the PDF. Save. Mail back to the address given. 3. Download the PDF. Print and fill in the questionnaire by hand. Mail back to the address given. Below this is a PDF icon and the text "HBTS Questionnaire". Further down, it says "FOR QUESTIONS? The hotline is (850) 316-8987 and the email address is HBTS@baskervilledonovan.com". The "Questionnaire" section begins with a paragraph about Santa Rosa County's watershed study. Below this is a form with fields for "RESPONDENTS NAME (Optional)" (split into First and Last), "PHONE NUMBER (Optional)", and "EMAIL (Optional)". A "More Information" link is at the bottom right. A smartphone in the foreground displays the same questionnaire content on its screen.

Existing Conditions Model

- Field Data
- Public Information
- Soils, Land Use, Topography

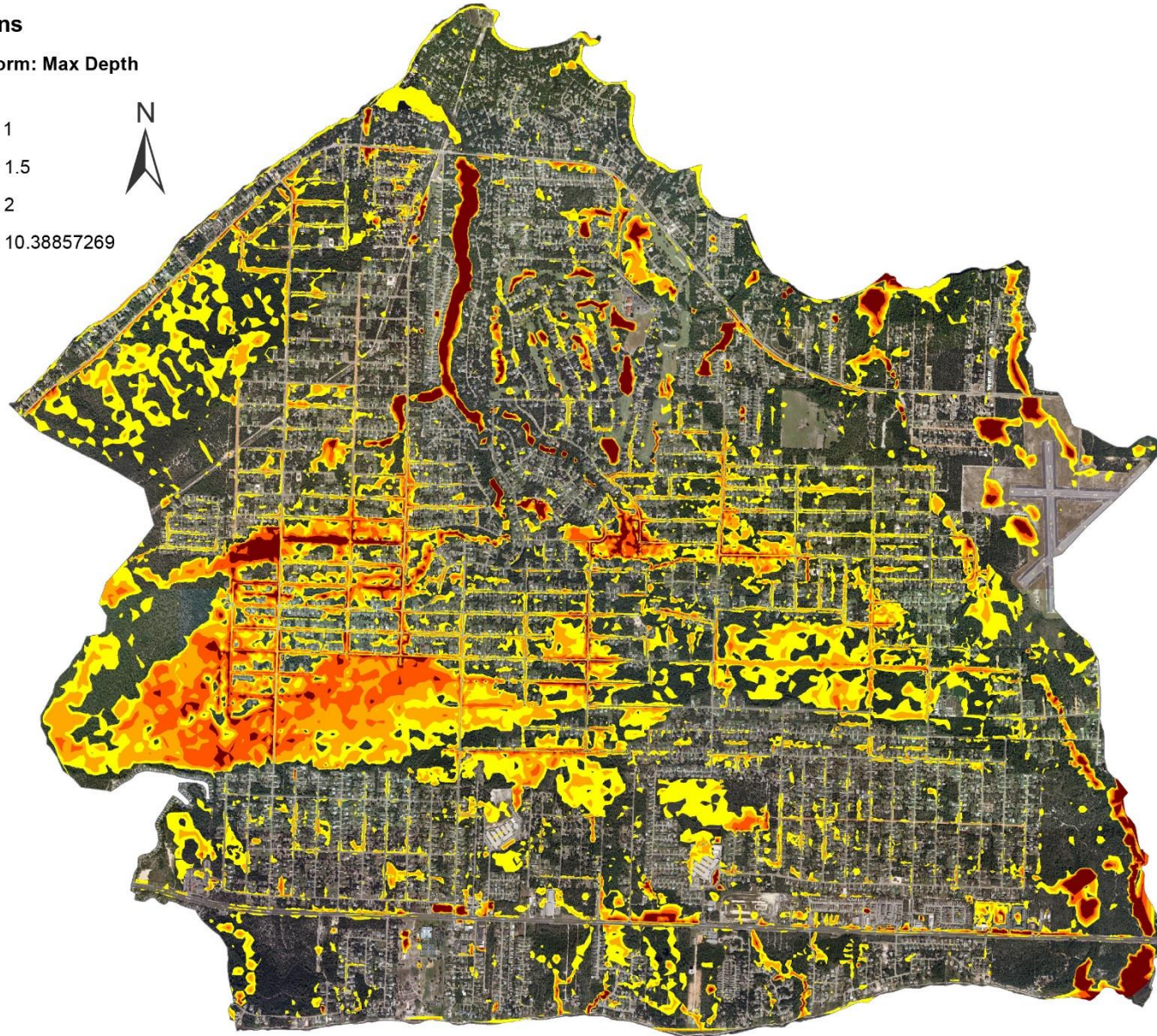


100 Year Model

Existing Conditions

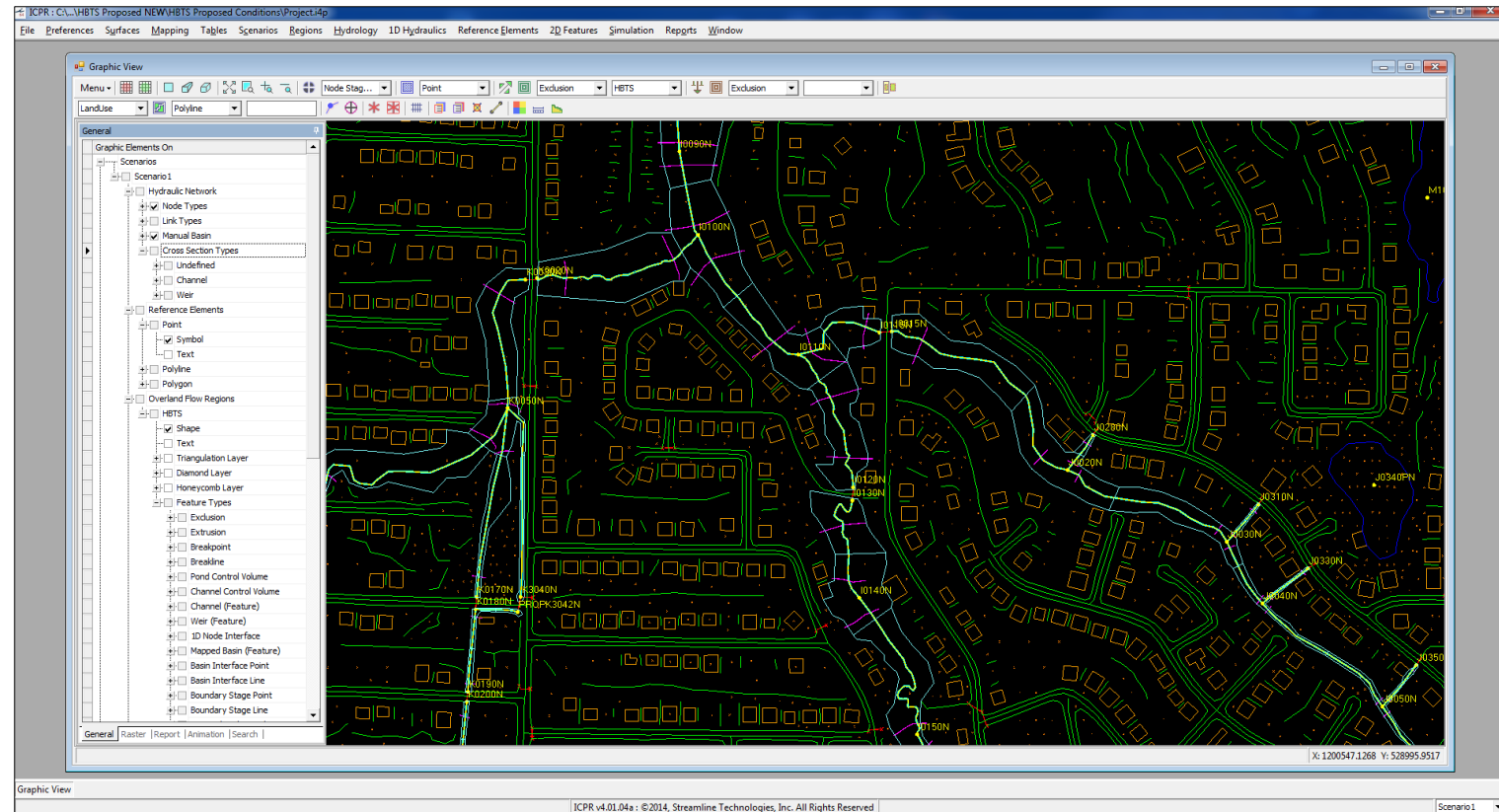
100-Year, 24-Hour Storm: Max Depth

Depth (Feet)



Approach

- Improve existing system
- Identify new outfalls
- Policy recommendations
- 30+ conceptual improvements



Conceptual Improvements

Holley by the Sea Drainage Improvement Program Conceptual Improvement List

Project:	Cost:	Final Score
TKB 1: Basswood Drive Drainage Improvements	\$ 1,100,000	9
TKB 2: Glassport Street Drainage Improvements	\$ 325,000	3
TKB 3: Tom King Bayou East Branch Channel Restoration	\$ 6,700,000	17
TKB 4: Crescent Road Relief Pipeline	\$ 5,850,000	1
TKB 5: Freedom Ct South Channel Improvements	\$ 2,700,000	3
TKB 6: Freedom Ct North Channel Improvements	\$ 1,950,000	4
TKB 7: Tom King Bayou Middle Branch, North Channel Restoration	\$ 3,500,000	14
TKB 8: Tom King Bayou Middle Branch, South Channel Restoration	\$ 5,800,000	4
TKB 9: Tom King Bayou West Branch Channel Restoration	\$ 3,000,000	10
TKB 10: Sherwood Dr. Drainage Improvements	\$ 800,000	7
TKB 11: Camden Dr. Outfall Improvements	\$ 1,000,000	5
TKB 12: Federal Street Drainage Pipe	\$ 875,000	0
TKB 13: Citrus Dr. Drainage System Improvements	\$ 2,265,000	6
TKB 14: Broadmoor St. Outfall	\$ 2,300,000	2
TKB 15: Sunrise Drive Drainage Improvements	\$ 1,300,000	2

EDN 1: West Ditch Improvements	\$ 800,000	3
EDN 2: Admiral St. N Drainage Improvements	\$ 650,000	2
EDN 3: Edgewood Dr. Drainage Improvements	\$ 630,000	1
EDN 4: Bluefish Rd Area Drainage System	\$ 1,650,000	2
EDN 5: East Bay Boulevard Culvert Upgrades	\$ 250,000	3

HDN 1: Brewster St. Outfall	\$ 1,800,000	3
HDN 2: Pepper Dr. Drainage System Improvements	\$ 1,100,000	2
WCE 1: Williams Creek East, South Channel Restoration	\$ 7,050,000	8
WCE 2: Williams Creek East, Northeast Channel Restoration	\$ 4,700,000	3
WCE 3: Williams Creek East, Northwest Channel Improvements	\$ 1,400,000	2
WCE 4: Leisure Street Drainage Improvements	\$ 9,765,000	1
WCW 1: Palmetto Drive Drainage System	\$ 1,835,000	10
WCW 2: Drainage System Improvements, Aurora St. to Resort St.	\$ 900,000	4
WCW 3: West Williams Creek Channel Restoration	\$ 1,150,000	12
WCW 4: Sandstone St. South Channel Improvements	\$ 260,000	2
NP1: Water Street Area Drainage Improvements	\$ 490,000	2
LE 1: Crittenden Drive Area Improvements	\$ 430,000	8



Scoring Matrix

Holley by the Sea Drainage Improvement Program

Scoring Matrix

Project:	Cost:	Flooding Homes Affected	Flooding Streets Affected	Individual Score ¹	Future Improvement Score ²	Final Score ³
		3x	1x			
TKB 1: Basswood Drive Drainage Improvements	\$ 1,100,000	0	9	9	0	9
TKB 2: Glassport Street Drainage Improvements	\$ 325,000	0	3	3	0	3
TKB 3: Tom King Bayou East Branch Channel Restoration	\$ 6,700,000	1	0	3	14	17
TKB 4: Crescent Road Relief Pipeline	\$ 5,850,000	0	1	1	0	1
TKB 5: Freedom Ct South Channel Improvements	\$ 2,700,000	0	1	1	2	3
TKB 6: Freedom Ct North Channel Improvements	\$ 1,950,000	0	2	2	2	4
TKB 7: Tom King Bayou Middle Branch, North Channel Restoration	\$ 3,500,000	0	1	1	13	14
TKB 8: Tom King Bayou Middle Branch, South Channel Restoration	\$ 5,800,000	0	4	4	0	4
TKB 9: Tom King Bayou West Branch Channel Restoration	\$ 3,000,000	0	1	1	9	10
TKB 10: Sherwood Dr. Drainage Improvements	\$ 800,000	0	4	4	3	7
TKB 11: Camden Dr. Outfall Improvements	\$ 1,000,000	0	2	2	3	5
TKB 12: Federal Street Drainage Pipe	\$ 875,000	0	0	0	0	0
TKB 13: Citrus Dr. Drainage System Improvements	\$ 2,265,000	1	3	6	0	6
TKB 14: Broadmoor St. Outfall	\$ 2,300,000	0	2	2	0	2
TKB 15: Sunrise Drive Drainage Improvements	\$ 1,300,000	0	3	3	0	3
TKB 16: Sunrise Drive Entrance Improvements	\$ 530,000	0	1	1	0	1
TKB 17: Banyan Drive Drainage Area Improvements	\$ 490,000	0	5	5	0	5
EDN 1: West Ditch Improvements	\$ 800,000	0	3	3	0	3
EDN 2: Admiral St. N Drainage Improvements	\$ 650,000	0	2	2	0	2
EDN 3: Edgewood Dr. Drainage Improvements	\$ 630,000	0	1	1	0	1
EDN 4: Bluefish Rd Area Drainage System	\$ 1,650,000	0	2	2	0	2
EDN 5: East Bay Boulevard Culvert Upgrades	\$ 250,000	0	3	3	0	3
HDN 1: Brewster St. Outfall	\$ 1,800,000	0	3	3	0	3
HDN 2: Pepper Dr. Drainage System Improvements	\$ 1,100,000	0	2	2	0	2
WCE 1: Williams Creek East, South Channel Restoration	\$ 7,050,000	0	2	2	6	8
WCE 2: Williams Creek East, Northeast Channel Restoration	\$ 4,700,000	0	3	3	0	3
WCE 3: Williams Creek East, Northwest Channel Improvements	\$ 1,400,000	0	2	2	0	2
WCE 4: Leisure Street Drainage Improvement:	\$ 9,765,000	0	1	1	0	1
WCW 1: Palmetto Drive Drainage System	\$ 1,835,000	2	0	6	4	10
WCW 2: Drainage System Improvements, Aurora St. to Resort St.	\$ 900,000	0	4	4	0	4
WCW 3: West Williams Creek Channel Restoration	\$ 1,150,000	0	0	0	12	12
WCW 4: Sandstone St. South Channel Improvements	\$ 260,000	0	2	2	0	2
NP1: Water Street Area Drainage Improvements	\$ 490,000	0	2	2	0	2
LE 1: Crittenden Drive Area Improvements	\$ 430,000	1	5	8	0	8

1. Sum of score incurred by this project alone.






2. Sum of individual scores of all subsequent projects.

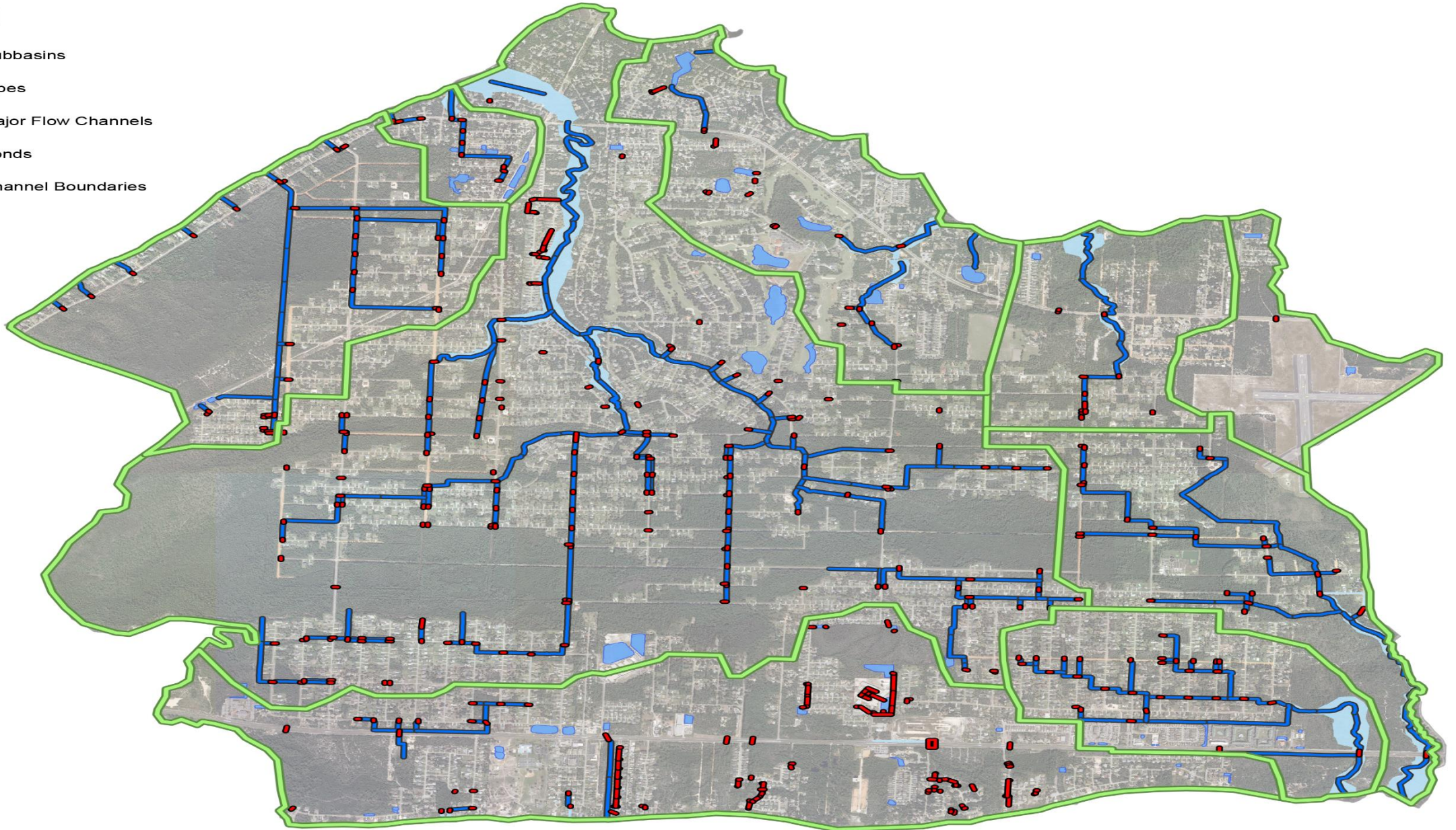
3. Sum of Individual Score and Score for future projects.



Project Dependence

Legend

-  Subbasins
-  Pipes
-  Major Flow Channels
-  Ponds
-  Channel Boundaries





Independent Project

Illustration



Independent Project



Dependent 1

Illustration



Independent Project



Dependent 1



Dependent 2

Independent Projects



D1 Dependent Projects

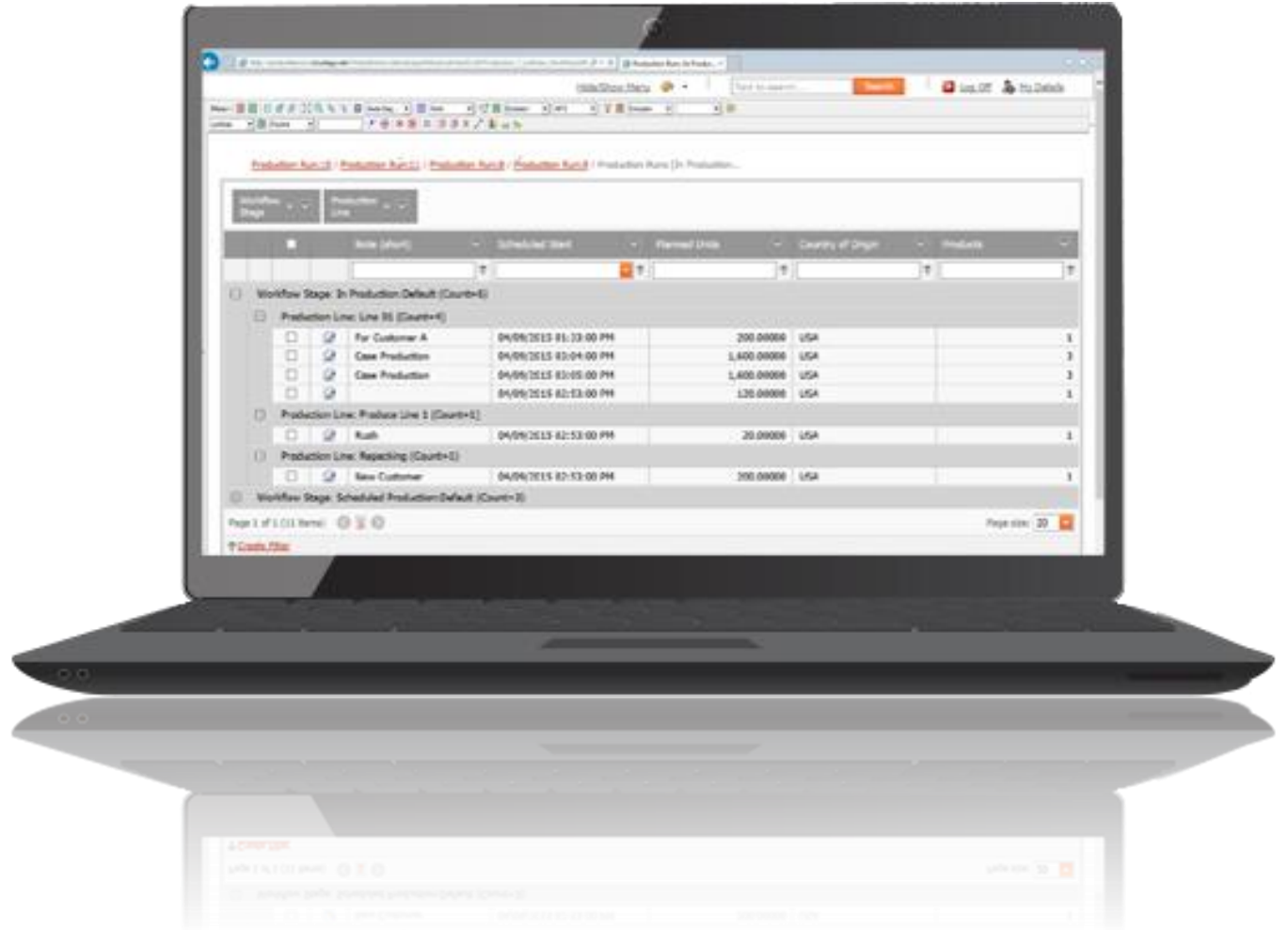


D2 Dependent Projects



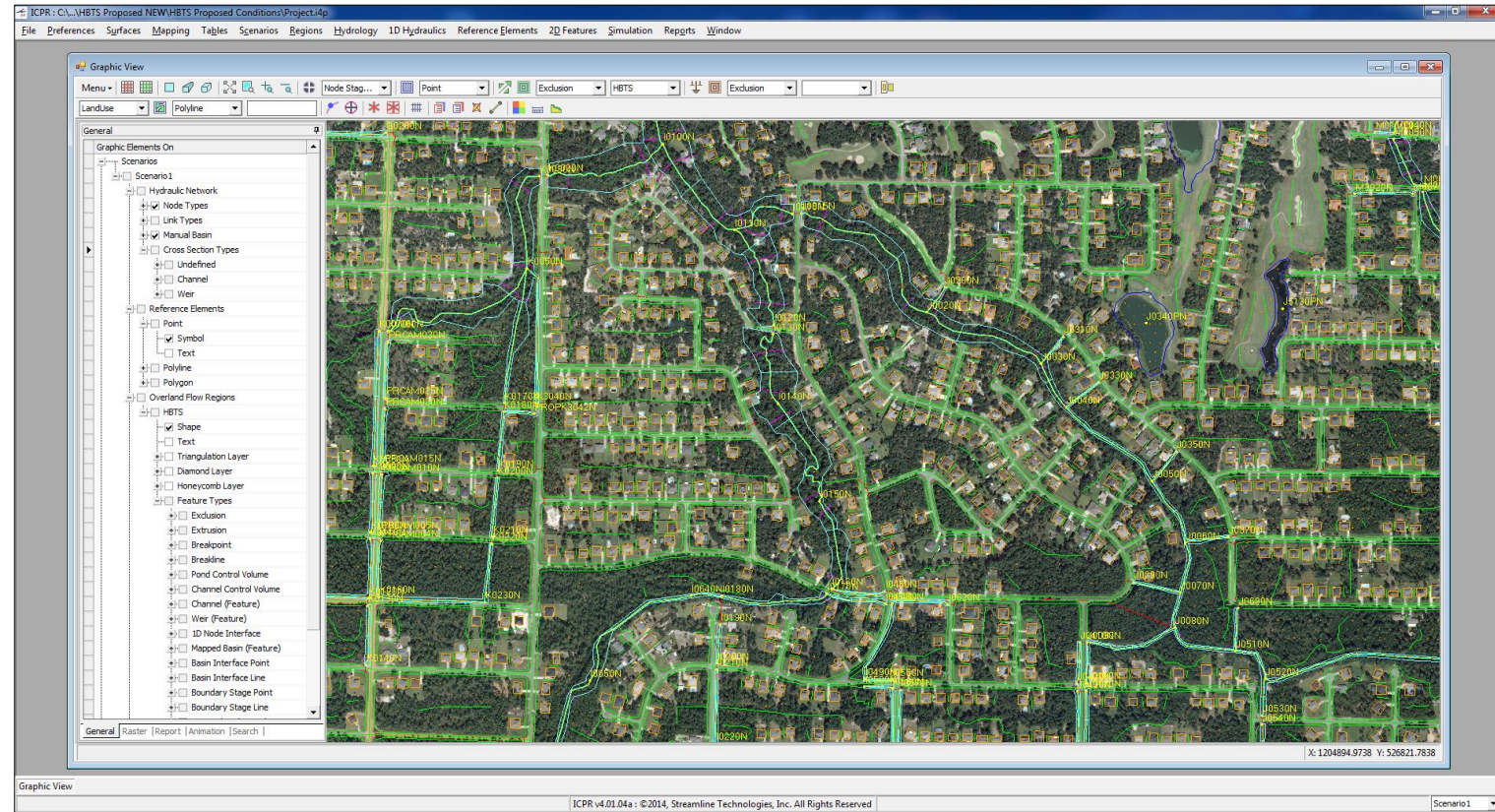
Moving Forward

- System inventory
- Existing conditions model
- Conceptual improvement



Tool for Programming

- Funding Opportunities
- Shovel Ready Projects
- Leveraging Opportunities



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Summary

